

Appl. No. 10/607,869

Amendments to the Claims

Claims 1-48 (Cancelled)

49. (Currently amended) A method of forming silicon-on-insulator comprising integrated circuitry, comprising:

forming ~~a~~ the silicon comprising layer of the silicon-on-insulator circuitry;

forming a pair of source/drain regions in the silicon comprising layer and a channel region in the silicon comprising layer which is received intermediate the source/drain regions;

forming a transistor gate operably proximate the channel region;

forming ~~the~~ an insulator layer of the silicon-on-insulator circuitry, the insulator layer being formed to ~~comprise~~ comprise:

a first silicon dioxide comprising region in contact with the silicon comprising layer and running along at least a portion of the channel region between the source/drain ~~regions,~~ regions;

a silicon nitride comprising region in contact with the first silicon dioxide comprising region and running along at least a portion of the channel ~~region,~~ region;

and

a second silicon dioxide comprising region in contact with the silicon nitride comprising region, the silicon nitride comprising region being received intermediate the first and second silicon dioxide comprising regions, the forming the insulator layer comprising forming a first silicon dioxide layer on a first substrate, forming a

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second silicon dioxide layer on a second substrate and joining the first substrate to the second substrate.

50. (Withdrawn) The method of claim 49 comprising ~~forming said circuitry by joining a first substrate comprising the silicon comprising layer with a second substrate comprising the insulator layer,~~ forming the silicon nitride comprising region comprising nitridizing at least one of the first and second substrates prior to the joining.

51. (Withdrawn) The method of claim 50 wherein the nitridizing comprises ion implanting.

52. (Withdrawn) The method of claim 50 wherein the nitridizing comprises direct plasma nitridation.

53. (Withdrawn) The method of claim 50 wherein the nitridizing comprises remote plasma nitridation.

54. (Withdrawn) The method of claim 50 wherein the nitridation is void of either direct or remote nitrogen containing plasma exposure.

55. (Currently amended) The method of claim 49 comprising ~~forming said circuitry by joining a first substrate comprising the silicon comprising layer with a second substrate comprising the insulator layer to form a joined substrate,~~ forming the silicon

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nitride comprising region comprising nitridizing after the joining ~~forming the joined~~ substrate.

56. (Original) The method of claim 55 wherein the nitridizing comprises ion implanting.

57. (Withdrawn) The method of claim 55 wherein the nitridizing comprises direct plasma nitridation.

58. (Withdrawn) The method of claim 55 wherein the nitridizing comprises remote plasma nitridation.

59. (Withdrawn) The method of claim 55 wherein the nitridation is void of either direct or remote nitrogen containing plasma exposure.

60. (Original) The method of claim 55 comprising forming the silicon nitride comprising region to have a thickness of from about 10 Angstroms to about 50 Angstroms.

61. (Original) The method of claim 55 comprising forming the first silicon dioxide comprising region to have a thickness of from about 10 Angstroms to about 50 Angstroms.